

COSMOLOGY

Puzzle of  
Dark Energy

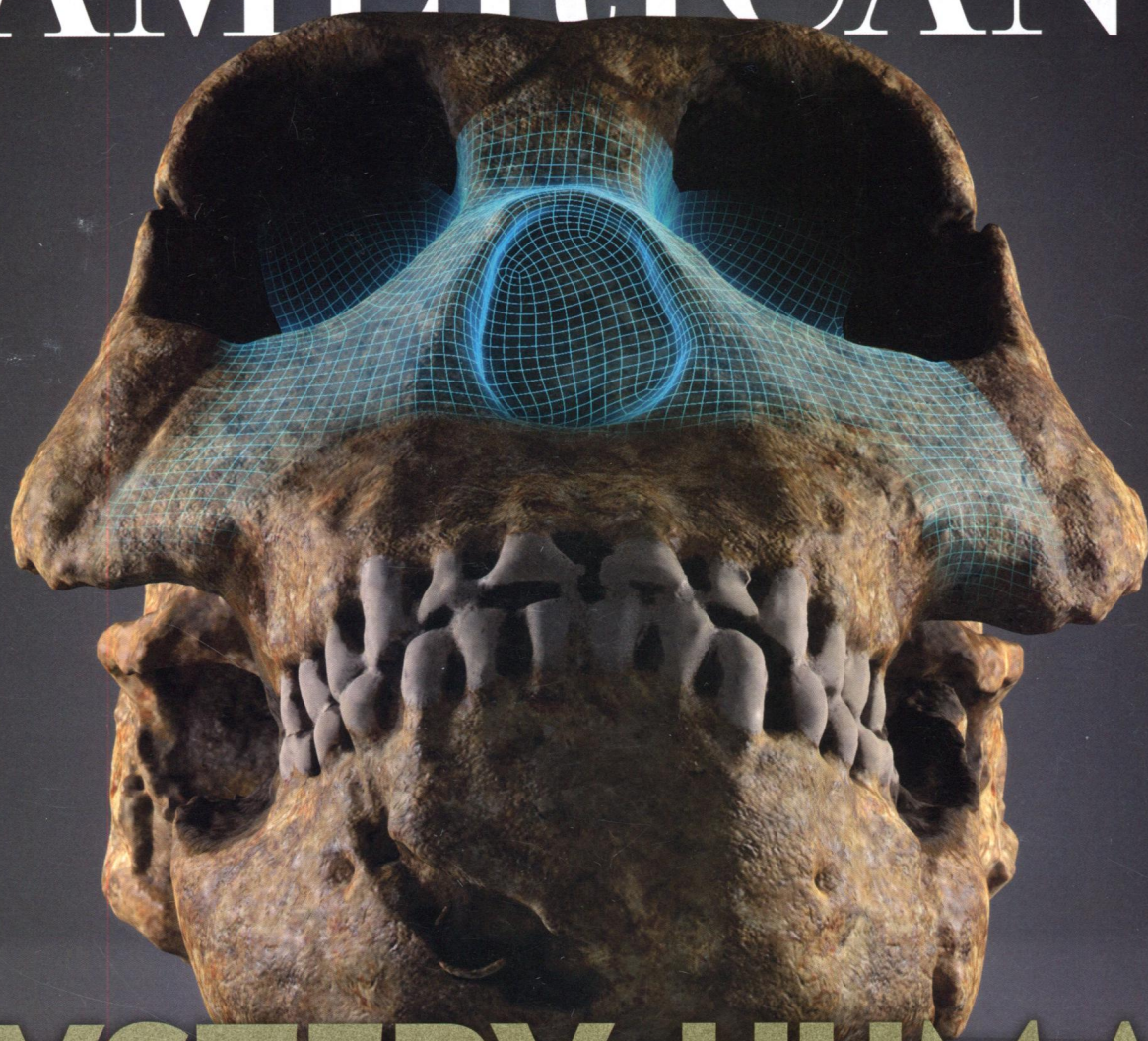
SUSTAINABILITY

Climate Refugees  
of Syria

NEUROSCIENCE

The Brain's  
Garbage Disposal

# SCIENTIFIC AMERICAN



## MYSTERY HUMAN

Enigmatic bones found  
in South Africa  
are stirring a debate  
about our origins

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A trove of enigmatic bones found in a cave in South Africa has stirred up a long-simmering debate about our origins.

*By Kate Wong*

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*By Adam G. Riess and Mario Livio*

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Our most complex organ maintains its own internal garbage-disposal system for toxic wastes. The cleanup ritual happens while we sleep.

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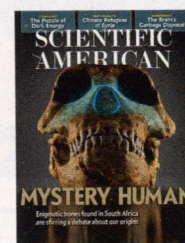
Epic volcanic explosions are behind most of Earth's mass extinctions. *By Howard Lee*

## BIOLOGY

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From insects to mammals, a small set of genes and proteins controls the orientation of cells and tissues.

*By Paul N. Adler and Jeremy Nathans*



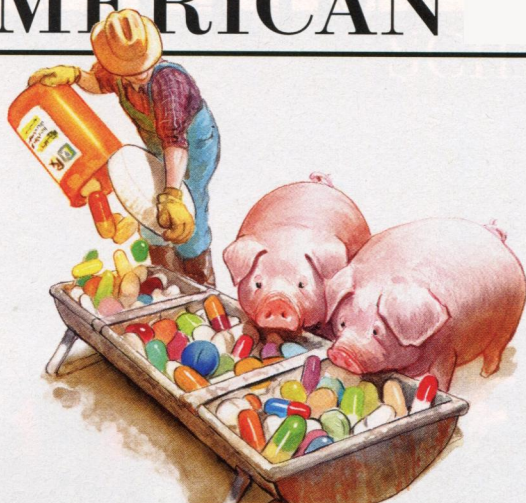
## ON THE COVER

Skull of new human species *Homo naledi* was virtually reconstructed from fossil fragments belonging to several individuals. In this artist's conception, which is based on a 3-D image file released to the public by the discovery team in South Africa, blue indicates areas for which fossil material has not been recovered.

Illustration by Bryan Christie.



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### Cabinet of the Universe

*Scientific American* explores astronaut/video game developer Richard Garriott's unique artifact collection documenting the history of the universe.

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